

Integrating quality function development and interpretive structure model
to establish a product family:A case study

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Abstract

Purpose - The purpose of this paper is to establish a product family that can satisfy various market needs and share design elements.

Design/methodology/approach - The paper applies quality function development to understand the correlation between customer needs and product design. The priority sequence and correlation of these design elements will be determined using the interpretive structure model.

Findings - This approach will reduce repeated design effort and reduce unnecessary cost and time.

The designer can simultaneously and efficiently meet various market and customer needs.

Originality/value - The company can open up more markets for greater profit and advantages. The paper uses “the market need and BIKE product redesign” as the example for the proposed approach.

Keyword : Product design, Customer relations, Quality function deployment